PATENT APPLICATION DOCKET NO.: 3194.1022-002 (Formerly 7184-PA13C)

Applicants:

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Daniel Alvarez, Jr. and Jeffrey J. Spiegelman

Appucation

10/692,018

Group Art Unit: 1724

Filed:

4/21/04

October 23, 2003

Examiner: Unknown

Confirmation No.:

8519

Title:

METHOD FOR PURIFICATION OF LENS GASES USED

IN PHOTOLITHOGRAPHY

CERTIFICATE OF MAILING OR TRANSMISSION

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INFORMATION DISCLOSURE STATEMENT

Mail Stop Missing Parts Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

(Filed after payment of issue fee)

| | , |
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| Sir: | |
| This I | information Disclosure Statement is submitted: under 37 CFR 1.129(a), or (First/Second submission after Final Rejection) |
| [X] | under 37 CFR 1.97(b), or (Within any one of the following time periods: three months of filing national application (other than a CPA) or date of entry of the national stage in an international application; or before the mailing date of a first office action on the merits in a non-provisional application, including a CPA, or a Request for Continued Examination). |
| [] | under 37 CFR 1.97(c) together with either: [] a Statement under 37 CFR 1.97(e), as checked below, or [] a \$180.00 fee under 37 CFR 1.17(p), or (After the 37 CFR 1.97(b) time period, but before final action or notice of allowance, whichever occurs first) |
| [] | under 37 CFR 1.97(d) together with: [] a Statement under 37 CFR 1.97(e), as checked below, and [] a \$180.00 fee under 37 CFR 1.17(p), or (Filed after final action or notice of allowance, whichever occurs first, but on or before payment of the issue fee) |
| [] | under 37 CFR 1.97(i): |

Applicant requests that the IDS and cited reference(s) be placed in the application filewrapper.

| State | ement Un | der 37 CFR 1.97(e) | | | | | |
|-------|-------------------------|---|--|--|--|--|--|
| [] | any co | Each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement; or | | | | | |
| [] | comm knowl in the | No item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned, after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. | | | | | |
| State | ement Un | der 37 CFR 1.704(d) (Patent Term Adjustment) Applies to original applications (other than design) filed on or after May 29, 2000 | | | | | |
| [] | comm was n | item of information contained in the Information Disclosure Statement was cited in a funication from a foreign patent office in a counterpart application and this communication of received by any individual designated in § 1.56(c) more than thirty days prior to the of the Information Disclosure Statement. | | | | | |
| [X] |] Enclo | sed herewith is form PTO-1449: | | | | | |
| | [] | Copies of the cited references are enclosed. | | | | | |
| | | [] Since this application was filed after June 30, 2003, copies of issued U.S. patents and published U.S. applications are not required and are not being provided. | | | | | |
| | [X] | Copies of the cited references are enclosed except those entered in prior application, U.S. Application No. 10/078,716, now U.S. Patent No. 6,645,898 B2 issued November 11, 2003 and U.S. Application No. 09/824,383, now U.S. Patent No. 6,391,090 B1 issued May 21, 2002, to which priority under 35 U.S.C. 120 is claimed. The earlier application contains copies of the cited references. | | | | | |
| | [] | The listed references were cited in the enclosed International Search Report in a counterpart foreign application. | | | | | |
| | [X] | The "concise explanation" requirement (non-English references) for reference AL under 37 CFR 1.98(a)(3) is satisfied by: | | | | | |
| | | [] the explanation provided on the attached sheet. | | | | | |
| | | [] the explanation provided in the Specification. | | | | | |
| | | [] submission of the enclosed International Search Report. | | | | | |
| | | [] submission of the enclosed English-language version of a foreign Search Report and/or foreign Office Action. | | | | | |
| | | [X] the English language abstract on the published PCT application | | | | | |

| [] | Applio | cant requests that the following n | on-published pending appli | cations be considered: |
|------------------------|--------------------|---|---|--|
| Examiner's Initials | | | | |
| | | U.S. Patent Application No. [|], by [inventor(s)], filed [|], Docket No.: [] |
| | | U.S. Patent Application No. [|], by [inventor(s)], filed [|], Docket No.: [] |
| | | U.S. Patent Application No. [|], by [inventor(s)], filed [|], Docket No.: [] |
| - | | Examiner | Date | |
| • | [] | A copy of each above-cited app | olication, including the curre | ent claims, is enclosed. |
| • | [] | A copy of each above-cited app those entered in prior application 35 U.S.C. 120 is claimed. | olication, including the curre on, U.S. Application No. [| ent claims, is enclosed, except], to which priority under |
| The E | xamine: nces we | r is requested to return a copy of re considered with the next offic | the above list of pending ap e communication. | plications indicating which |
| It is re | quested | I that the information disclosed h | erein be made of record in t | his application. |
| Metho | od of pa | yment: | | |
| [] | A che | ck for the fee noted above is enclopanying Reply. A copy of this S | losed, or the fee has been inc Statement is enclosed. | cluded in the check with the |
| [] | Please | c charge Deposit Account 08-038 sed. | 30 in the amount of \$[|]. A copy of this Statement is |
| [X] | Please | e charge any deficiency in fees ar | nd credit any overpayment to | Deposit Account 08-0380. |
| | | F | Respectfully submitted, | |
| | | I | HAMILTON, BROOK, SMI | TH & REYNOLDS, P.C. |
| | | F | Alice O. Carroll Registration No.: 33,542 Telephone: (978) 341-0036 Facsimile: (978) 341-0136 | <u>ll</u> |

Concord, MA 01742-9133 Dated: April 23, 2004

| INFORMATION DISCLOSURE CITATION | ATTORNEY DOCKET NO. 3194.1022-002 (7184-PA13C) | 1 | PLICATION NO. 7692,018 | |
|--|---|------|---------------------------|---------------|
| April 23, 2004 | FIRST NAMED INVENTOR Daniel Alvarez, Jr. FILING DATE October 23, | | , 2003 | |
| April 23, 2004 (Uzz everal sheets if necessary) | EXAMINER | CONF | RMATION NO. | GROUP 1724 |

| | <u>a 15.6</u> | | S. PATENT DOCUMENTS | |
|-------------------------------|---------------|---|--|--|
| EXAM- INER INI- TIAL | REF. NO. | DOCUMENT NUMBER Number-Kind Code (if known) | ISSUE DATE / PUBLICATION DATE MM-DD-YYYY | NAME OF PATENTEE OR APPLICANT OF CITED DOCUMENT |
| • | AA | 5,685,895 | 11-11-1997 | Hagiwara et al. |
| | AB | 5,910,292 | 6-8-1999 | Alvarez, Jr. et al. |
| | AC | 6,059,859 | 5-9-2000 | Alvarez, Jr. et al. |
| | AD | 6,103,206 | 8-15-2000 | Taylor, Jr. et al. |
| ٠, | AI | 4,855,276 | 8-8-1989 | Osborne et al. |
| | AJ | 5,607,647 | 3-4-1997 | Kinkead |
| • | AG | 4,663,300 | 5-5-1987 | Lester et al. |
| | AI | 4,735,927 | 4-5-1988 | Gerdes et al. |
| | AI | 4,798,813 | 1-17-1989 | Kato et al. |
| | AJ | 4,869,735 | 9-26-1989 | Miyazawa et al. |
| | AK | 5,171,422 | 12-15-1992 | Kirker et al. |
| | AA2 | 5,328,672 | 7-12-1994 | Montreuil et al. |
| | AB2 | 5,430,000 | 7-4-1995 | Timken |
| | AC2 | 6,114,268 | 9-5-2000 | Wu et al. |
| | AD2 | 6,569,394 B2 | 5-27-2003 | Fischer et al. |
| | AE2 | 6,576,587 B2 | 6-10-2003 | Labarge et al. |
| | AF2 | 6,645,898 B2 | 11-11-2003 | Alvarez, Jr. et al. |
| | AG2 | 6,391,090 B1 | 5-21-2002 | Alvarez, Jr. et al. |
| | AH2 | | | |
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INFORMATION DISCLOSURE CITATION IN AN APPLICATION

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| ATTORNEY DOCKET NO. 3194.1022-002 (7184-PA13C) | | LICATION NO. 692,018 | |
| FIRST NAMED INVENTOR Daniel Alvarez, Jr. | | FILING DATE October 23, | 2003 |
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| | | F | OREIGN PATENT D | OCUMENTS | | |
|---|------|--|--------------------|--|-----------------------|----------|
| | | DOCUMENT NUMBER Country Code-Number-Kind Code (if known) | DATE MM-DD-YYYY | NAME OF PATENTEE OR APPLICANT OF CITED DOCUMENT | TRANSLATION YES NO | |
| • | AL | WO 88/02659 | 04-21-1988 | Steuler-Industriewerke GmbH | X | |
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| | | | | Sheet 3 01. |
|--|--|---------------|---------------------------|---------------|
| PTO-1449 REPRODUCED INFORMATION DISCLOSURE CITATION IN AN APPLICATION | ATTORNEY DOCKET NO. 3194.1022-002 (7184-PA13C) | | PLICATION NO. /692,018 | |
| April 23, 2004 | FIRST NAMED INVENTOR Daniel Alvarez, Jr. | - | FILING DATE October 23, | , 2003 |
| (Use several sheets if necessary) | EXAMINER | CONFI 8519 | IRMATION NO. | GROUP 1724 |

| | | OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) |
|-----|-----|---|
| | AR | Dallas, Andrew J., et al., "Protecting the DUV Process and Optimizing Optical Transmission", Meterology, Inspection, and Process Control for Microlithography XIV, Neal T. Sullivan, Editor, Proceedings of SPIE, Vol. 3998, pages 863-74 (2000). |
| • , | AS | Holmes, S. J., et al., "Manufacturing with DUV Lithography", IBM Journal of Research and Development, Vol. 41, Optical Lithography (1997). |
| • | АТ | Kishkovich, Oleg, et al., "Real-Time Methodologies for Monitoring Airborne Molecular Contamination in Modern DUV Photolithography Facilities", SPIE Conference on Meterology, Inspection, and Process Control in Microlithography XIII, Vol. 3677, pages 348-76 (March 1999). |
| • | AU | Koshkovich, Oleg, et al., "An Accelerated Testing Technique for Evaluating Performance of Chemical Air Filters for DUV Photolithographic Equipment", SPIE Conference on Meterology, Inspection, and Process Control in Microlithography XIII, Vol. 3677, pages 857-65 (March 1999). |
| | AV | MacDonald, Scott A., et al., "Airborne Contamination of a Chemically Amplified Resist 1 Identification of Problem", Chem. Mater, Vol. 5, pages 348-56 (1993). |
| | AW | Zhu, Sheng-Bai, "Contamination Control During Sh8pp8ng, Handling and Storage of Reticles", Meterology, Inspection, and Process Control for Microlithography XIV, Neal T. Sullivan, Editor, Proceedings of SPIE, Vol. 3998, pages 565-72 (2000). |
| | AX | Ullmans' Encyclopedia of Industrial Chemistry, Completely Revised Fifth Edition, Editors Barbara Elvers and Stephen Hawkins, Vol. 28A, pages 475-90 (1985). |
| | AY | Kirk-Othmer Encyclopedia of Chemical Technology, Third Edition, Vol. 15, pages 639-55, 1339-69 (1978). |
| | AZ | |
| | AR2 | |
| | AS2 | |
| | AT2 | |
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